WHAT IS CLAIMED IS:

1. A host cell being co-transformed with:

(a) a first expression construct including a first polynucleotide encoding a functional mammalian β-2 microglobulin, being translationally fused upstream of a second polynucleotide encoding a functional MHC class I heavy chain; and

(b) a second expression construct including a third polynucleotide encoding an antigenic peptide, wherein when said first, second and third polynucleotides are co-expressed in the host cell, an MHC class I-antigenic peptide complex is formed.

2. The host cell of claim 1, wherein said first expression construct further includes an in-frame linker polynucleotide sequence encoding a linker peptide interposed between said first and said second polynucleotides.

3. The host cell of claim 1, wherein said cell is a eukaryotic cell.

4. The host cell of claim 1, wherein said cell is a bacterial cell.

5. A method of producing a functional MHC class I molecule comprising the steps of:

(a) expressing, in bacteria, a single chain MHC class I polypeptide including a functional mammalian β-2 microglobulin amino acid sequence covalently linked to a functional mammalian MHC class I heavy chain amino acid sequence; and

(b) isolating said single chain MHC class I polypeptide.

6. The method of claim 5, further comprising the step of:

(c) refolding said single chain MHC class I polypeptide in presence of an antigenic peptide capable of binding said

single chain MHC class I polypeptide, to thereby generate an MHC class I-antigenic peptide complex.

7. The method of claim 5, further comprising the step of:

(d) isolating said MHC class I-antigenic peptide complex via size exclusion chromatography.

8. The method of claim 5, wherein said antigenic peptide is co-expressed along with said single chain MHC class I polypeptide in said bacteria.

9. The method of claim 5, wherein step (a) is effected such that said single chain MHC class I polypeptide forms inclusion bodies in said bacteria.

10. The method of claim 8, wherein said antigenic peptide and said single chain MHC class I polypeptide form inclusion bodies in said bacteria.

11. The method of claim 9, wherein said step of isolating said polypeptide further includes the steps of:

(i) denaturing said inclusion bodies so as to release protein molecules therefrom; and

(ii) renaturing said protein molecules.

12. The method of claim 11, wherein said step of renaturing said protein molecules is effected in the presence of an antigenic peptide capable of binding said single chain MHC class I polypeptide.

13. The method of claim 12, wherein said antigenic peptide is co-expressed along with said single chain MHC class I polypeptide in said bacteria.

14. The method of claim 5, wherein said mammalian β-2 microglobulin amino acid sequence is a human β-2 microglobulin amino acid sequence and further wherein said mammalian MHC class I heavy chain amino acid sequence is a human MHC class I heavy chain amino acid sequence.